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REMARKS

The undersigned attorney thanks Examiner Blau for his careful review of this patent application. Reconsideration of the preser application is respectfully requested in light of the above amendments to the claims in view of the following remarks. Prior to entry of this amendment, claims 18 - 27 were pending in the application. Claims 18 and 24 has been amended. Upon entry of this amendment, claims 18 - 27 will be pending in the application.

Double Patenting

In paragraph 2, the Office Action alleged that should claim 22 be allowable, Claim 27 would be objected to as being a substantial duplicate thereof. Claim 22 depends upon independent Claim 18. Claim 27 has been amended to depend upon independent Claim 24. Since independent Claim 18 and independent Claim 24 are directed toward separate embodiments, Claim 27 is now distinct from Claim 22. Therefore, it is respectfully requested that the objection be withdrawn.

Claim 24-25 Are Not Anticipated by Schmidt

In paragraph 4, the Office Action rejected Claims 24-25 as being anticipated by U.S. Patent No. 5,330,187 to Schmidt (hereinafter "*Schmidt*"). The Office Action alleged that *Schmidt* discloses a projected wall portion offset from a face portion and extending upward from a sole portion and having a length along an axis extending from the toe to the heel portion that is less than the length of the cavity portion.

Schmidt describes a cavity-back iron golf club that has two intersecting recess projecting to the rear proximate to the periphery of the face portion to define a front wall. The two recesses include a forwardly and rearwardly extending main recess and an undercut recess located directly rearwardly of the front wall and extending laterally outward from the forward most extent of the main recess toward *at least two areas*, including the top wall, the bottom wall or sole, the toe region, and the heel region. Typically, the undercut recess portions associated with the walls are elongated directionally between the toe and heel portions, over the major length of the iron golf club head. This redistributes metal toward *both the upper and lower peripheries* of the head and projecting rearwardly to enhance the anti-twist of the golf club. The undercuts on both the

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top and bottom periphery are believed to achieve a delayed momentum transfer from the wall portions to the front wall and face.

The invention of amended Claim 24 describes an iron golf club head that contains a single cavity portion, a toe portion to a heel portion, a face portion, and a sole portion. The golf club head consists of a single projected wall portion that is offset from said face portion that has a length along the first axis that is less than the length of the cavity. The projected wall portion has an inner surface that face the face portion and an outer surface that extends to the periphery of the cavity side portion of the sole portion.

To anticipate a claim, the reference must teach each and every element of the claim. MPEP § 2131. *Schmidt* fails to disclose a golf club head having a cavity portion and consists of a single projected wall portion offset from the face portion having a length along an axis extending from the heel of the golf club to the toe of the golf club that is less than the cavity portion. The golf club described by *Schmidt* requires *two recesses*: a forwardly and rearwardly extending main recess and an undercut recess located directly rearwardly of the front wall. Furthermore, the undercut recess must extend laterally outwardly from the forward most extent of the main recess *toward at least two* of the following regions: i) the top wall; ii) the bottom wall or sole; iii) the toe region; and iv) the heel region. Since the undercut recess must extend laterally outwardly from the forward most extent of the main recess toward at least two regions, the undercut recess forms at least two extended wall projections.

Although *Schmidt* describes that slots may be provided proximate to the corners of the loop defined by the rearward projections to form isolated projections, FIG. 17 still illustrates that there must be at least two rearward projections, and more preferably four rearward projections around the perimeter of the cavity. In contrast, the iron golf club head of amended claim 24 *consists of a single projected wall portion that has an inner surface that face the face portion and an outer surface that extends to the periphery of the cavity side portion of the sole portion..* Therefore, each and every element of amended claim 24 is not described, taught, or suggested by the cited references either separately or in combination.

Because *Schmidt* does not describe, teach, or suggest a cavity back golf club head iron head that consists of a single projected wall portion offset from the face portion having a length along an axis extending from the heel of the golf club to the toe of the golf club that is less than the cavity portion and that also has an inner surface that face the face portion and an outer

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surface that extends to the periphery of the cavity side portion of the sole portion., Claim 24 is patentable over the cited reference. Therefore, it is respectfully requested that the rejection of Claim 24 be withdrawn.

The foregoing argument applies to Claims 25, which depend upon claim 24 and is also patentable over the cited reference. It is respectfully requested that the rejection of Claim 25 be withdrawn.

Claims 18 – 21 Are Not Rendered Obvious in View of The Cited References

In paragraph 6, the Office Action rejected claims 18 - 21 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,695,937 to Stites (hereinafter "*Stites I*") in view of Great Britain published patent application No. 2,331,249 to Kosmatka (herein "*Kosmatka*"). The Office Action has provided a detailed statement for the basis of the rejection of every claim. For the sake of conciseness, the reasons for rejecting Claims 18-21 will not be repeated here. However, it is respectfully submitted that the invention of amended independent Claim 18 and all claims that depend there from are patentable over the prior art and it is requested that the rejection of claims 18-21 be removed.

Stites I describes a golf club head that has a heel portion, a toe portion, a bottom sole portion, a top ridge portion, a striking face, a rear surface, and a peripheral mass on the rear surface, which forms a rear cavity. The golf club head also contains a cantilevered mass that extends from the bottom of the sole portion toward the top ridge portion within the rear cavity. *Stites I* further describes that the cantilevered mass may be disposed in one of three positions along the bottom of the sole portion between the heel portion and the toe portion. The cantilevered mass may be progressively moved from the low heel area for long irons, to a middle position for middle irons, to a higher position toward the toe for short irons.

Kosmatka describes an iron golf club head that has a contoured back surface that has varying thicknesses such that the regions of the face that are expected to experience the highest levels of internal loads are thickest, while those areas that are expected to experience the lowest levels of internal loads are thinnest. The contoured back surface contains a number of regions of varying thicknesses such that the club face generally thins out at the face/top wall intersection region approaching the toe and the face/top wall intersection region approaching the heel. In general the contoured regions follow along a vertical stiffening region and a horizontal stiffening

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region, which approximate an upside down "T" such that the cross bar of the "T" lies along the face/bottom wall intersection region and the upright leg of the "T" lies along the central vertical axis.

The invention of amended independent Claim 18 describes an iron golf club head that contains a single cavity portion, a toe portion to a heel portion, a face portion, and a sole portion. The sole portion contains a groove that extends along the face portion on a surface in the cavity portion. The face portion contains a ball hitting portion that has a thickness that is greater than the thickness of a top edge side portion of the face portion that is located between the ball hitting portion and the top edge portion of the golf club. Additionally, the ball hitting portion is at least as thick as a thickness of a sole side portion of the face portion that is located between the ball hitting portion and the sole portion that extends along the groove. The golf club head also consists of a single projected wall portion that is offset from said face portion that has a length along the first axis that is less than the length of the cavity. The projected wall portion has an inner surface that is partially defined by the groove and an outer surface that extends all the way to the periphery of the cavity portion side of the sole portion.

Each and every element of the claimed invention, and well as a motivation or suggestion to combine the elements, must be found in the references to establish a *prima facie* case of obviousness. MPEP §2142. Neither *Stites* nor *Kosmatka* describe, teach, or suggest an iron golf club head that *consists of a single projected wall portion offset from said face portion that has an outer surface that extends to the periphery of the cavity portion side of the sole portion.*

Although the golf club described by *Stites I* contains a cantilevered mass that is spaced apart from the rear surface, the cantilevered mass described by *Stites I* is contained entirely within the rear cavity. (Col. 3, lines 62 – 64; FIG. 3). In fact, *Stites I* teaches that the outer surface of the cantilevered mass is inset from the peripheral mass that forms the rear cavity, as shown by FIG. 3. The golf club of amended Claim 18 on the other hand, requires that the outer surface of the single projected wall portion extends to the periphery of the cavity portion side of the sole portion.

Furthermore, even if one were to combine the references as suggested by the Office Action, the resulting golf club head would not be the invention of amended claim 18. Rather, the resulting invention a cavity-backed iron golf club head with face having a contoured back

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portion with the weight distribution as described by *Kosmatka* with a cantilevered mass enclosed within the cavity, wherein the cantilevered mass is inset from the rear of the cavity.

Because none of the references describe, teach, or suggest a cavity back golf club head iron head that consists of a single projected wall portion offset from the face portion having a length that is less than the cavity portion and that has an outer surface that extends to the periphery of the sole portion on the cavity side, amended Claim 18 is patentable over the cited references. Therefore, it is respectfully requested that the rejection of Claim 18 be withdrawn.

The foregoing arguments apply to Claims 19 -21, which depend upon Claim 18 and are also patentable over the cited references. It is respectfully requested that the rejection of Claims 19-21 be withdrawn.

Claims 22 and 27 Are Not Rendered Obvious in View of The Cited References

In paragraph 7, the Office Action rejected claims 22 and 27 under 35 U.S.C. § 103(a) as being unpatentable over *Stites* in view of *Kosmatka* as applied to claims 18-21, and further in view of U.S. Patent No. 6,077,173 to *Stites* (hereinafter "*Stites II*"). The Office Action admitted that *Stites I* does not describe that the projected wall portion may be trapezoidal in shape. However, the Office Action alleges that *Stites II* discloses a bridging member extending from sole of a head being trapezoidal in shape. The Office Action further alleged that it would have been obvious to modify the head described by *Stites* to have a projected wall portion being trapezoidal in shape, as distribute more length lengthwise along a cantilevered mass to distribute its effect more lengthwise.

Stites II describes a cavity-backed iron golf club head that has a bridging member across the cavity on the rear surface and attached to the perimeter of the cavity. The bridging member has two ends, which are attached to the perimeter of the cavity at two locations known as "point loads." By changing the position of the two point loads along the perimeter of the cavity, the shape of the bridging member may be altered to affect the flight of the golf ball. *Stites II* also describes that the bridging member may be formed from extruded shapes, such as a square, rectangle, circle, oval, triangle, trapezoid, or any other geometric, regular, irregular, symmetrical, or asymmetrical shape.

Neither *Stites*, *Kosmatka*, nor *Stites II* describe, teach, or suggest an iron golf club head that consists of a single trapezoidal-shaped projected wall portion rising from the sole portion

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and offset from said face portion that has a outer surface that extends to the periphery of the cavity portion side of the sole portion. Although the golf club described by *Stites II* contains a bridging member that may be trapezoidal in shape, there is no motivation to combine the references. The Office Action alleged that the motivation to combine the references was to distribute more mass lengthwise along the cantilevered mass to distribute the effect of the cantilevered mass lengthwise across the cavity. However, *Stites I* specifically describes that the cantilevered mass is variably positioned along the sole of the portion of the cavity directly behind the primary striking zone of the striking face so as to place the center of gravity of the club directly below and behind the center of gravity of the golf ball at impact. If the mass from the cantilevered mass is dispersed lengthwise across the cavity, then there would be less mass placed directly behind the sweet spot, thereby reducing the desired effect that the cantilevered mass provided to the cavity-backed club. Therefore, since *Stites I* teaches away from the combination suggested by the Office Action, there is no motivation to combine the references as suggested by the Office Action. Thus, there is no *prima facie* case of obviousness and therefore, Claims 22 and 27 are patentable over the cited art. It is respectfully requested that the rejection of Claims 22 and 27 be withdrawn.

Claim 23 Is Not Rendered Obvious in View of the Cited References

In paragraph 8, the Office Action rejected Claim 23 under 35 U.S.C. 103(a) as being unpatentable over *Stites I* in view of *Kasmatka* as applied to claims 18-21, and further in view of Official Notice that no prior argument was made that it is known to manufacture golf club heads by forging.

Since Claim 23 depends upon Claim 18, the foregoing arguments with respect to Claim 18 are also applicable to Claim 23. Therefore, since none of the references suggest, teach, or describe a forged iron golf club head that has a projected wall portion that offset from the face portion and has a length that is less than the cavity portion and also that has on outer surface that extends to the periphery of the sole portion on the cavity side, Claim 23 is patentable over the cited references. Therefore, it is respectfully requested that the rejection of Claim 23 be withdrawn.

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Claim 26 Is Not Rendered Obvious in View of The Cited References

In paragraph 9, the Office Action rejected Claim 26 under 35 U.S.C. 103(a) as being unpatentable over *Schmidt* in view of *Kasmatka*. *Schmidt* and *Kasmatka* have been previously discussed above.

The invention of amended Claim 26 describes an iron golf club head that contains a single cavity portion, a toe portion to a heel portion, a face portion, and a sole portion. The face portion contains a ball hitting portion that has a thickness that is greater than the thickness of a top edge side portion of the face portion that is located between the ball hitting portion and the top edge portion of the golf club. Additionally, the ball hitting portion is at least as thick as a thickness of a sole side portion of the face portion that is located between the ball hitting portion and the sole portion that extends along the groove. The golf club head also consists of a single projected wall portion that is offset from said face portion that has a length along the first axis that is less than the length of the cavity.

Neither *Schmidt* nor *Kosmatka* describe, teach, or suggest an iron golf club head that consists of a single projected wall portion offset from said face portion that has an outer surface that extends to the periphery of the cavity portion side of the sole portion. In contrast, the golf club described by *Schmidt* requires two recesses: a forwardly and rearwardly extending main recess and an undercut recess located directly rearwardly of the front wall. Furthermore, the undercut recess must extend laterally outwardly from the forward most extent of the main recess toward at least two of the following regions: i) the top wall; ii) the bottom wall or sole; iii) the toe region; and iv) the heel region. Since the undercut recess must extend laterally outwardly from the forward most extent of the main recess toward at least two regions, the undercut recess forms at least two extended wall projections. Although *Schmidt* describes that slots may be provided proximate to the corners of the loop defined by the rearward projections to form isolated projections, FIG. 17 still illustrates that there must be at least two rearward projections, and more preferably four rearward projections around the perimeter of the cavity.

Furthermore, there is not motivation to combine the references. Rather, the references teach away from the claimed invention. The benefit disclosed by *Schmidt* include the "distribution of weight toward the upper and lower peripheries of the head, and projecting rearwardly at 24 and 25, for enhancing anti-twist of the head during stroking and ball impact." *Schmidt*, col. 3, lines 19. This redistribution of weight provides a somewhat delayed momentum

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transfer from the rearward projections to the front wall and front face by allowing the forward momentum to be transferred as a forward wave to pass around and through the upper and lower rearwardly projections, thereby achieving an enlarged sweet spot without increasing the vertical dimensions of the iron golf club head. Such momentum transfer is visualized in the form of a forward wave that passes around and through both the undercut recesses at the top line and the sole segment of the golf club. Clearly, these benefits are only achievable if the golf club head contains at least two undercuts recess, and therefore at least two projected wall portions.

Because none of the references describe, teach, or suggest a cavity back golf club head iron head that consists of a single projected wall portion offset from the face portion having a length that is less than the cavity portion and has an outer surface that extends to the periphery of the cavity portion side of the sole portion, Claim 26 is patentable over the cited references. Therefore, it is respectfully requested that the rejection of Claim 26 be withdrawn.

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CONCLUSION

It is respectfully submitted that claims 18 - 27 are in condition for allowance and that each point raised in the Official Action with regard to these claims has been fully addressed. Therefore, it is respectfully requested that the rejections to claims 18 - 27 be withdrawn and that claims 18 - 27 be processed to issuance in accordance with Patent Office Business.

If the Examiner believes that there are any issues that can be resolved by a telephone conference, or that there are any informalities that can be corrected by an Examiner's amendment, please contact John Briski at 404.885.3141.

Respectfully submitted,

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